

The Effectiveness of Physical Therapists Serving as Primary Care Musculoskeletal Providers as Compared to Family Practice Providers in a Deployed Combat Location. A Retrospective Medical Chart Review.

Introduction:

Physical therapists (PT) are underutilized in deployed combat and non-deployed, non-combat locations. Military PTs can practice as independent musculoskeletal primary care providers. They are able to deliver safe, efficient care at a reduced cost and literature supports increased return to duty (RTD) rates for patients when seen by PT's through direct access.¹ Military PT's are credentialed to perform as a primary care provider for musculoskeletal conditions. The risk from either incorrect diagnosis or intervention from a physical therapist is extraordinarily low.¹ The practice mix of little or no risk coupled with substantial increases in RTD is uncommon in the healthcare field and therefore warrants further investigation as a means to increase effectiveness and efficiency of the care offered for patients with musculoskeletal complaints. It has been shown that with timely treatment patients return to duty at a faster rate with fewer visits, indicating effectiveness of care provided.² Efficiency is utilization of just the appropriate amount of energy and resources. PT's who are credentialed to practice in this manner could help decrease the musculoskeletal patient load for family practice providers in military treatment facilities and in deployed locations. The study conducted a retrospective medical chart analysis for patients who were seen by a physical therapist or family practice physicians for care of musculoskeletal conditions at Bagram Air Field, Afghanistan. A medical records review compared efficiency and effectiveness of a physical therapist (PT) functioning as a musculoskeletal primary care manager (PCM) compared to family practice (FP) physicians functioning as musculoskeletal PCM. It is hypothesized that utilization of medication and

imaging studies will be significantly less when PT functions as the PCM as compared to FP as the PCM, and Return to duty (RTD) rate will demonstrate significant gains when patients with musculoskeletal conditions are seen by PT as compared to FP. Active duty should have the option to seek conservative care through direct access to physical therapy services.

Methods: One Air Force PT practicing in a deployed combat location collected data on patients that presented directly to the PT clinic or directly to the family practice clinic for care of musculoskeletal complaints. Two active duty Air Force family practice physicians agreed to have their treatment patterns accessed. Fifty patients were randomly selected for the PT group and 100 patients for the FP group. The electronic data base was queried from June 2009 to January 2010. Data collected; age, gender, medication, imaging utilization, and RTD rate.

Results: FP as PCM (N=95), PT as PCM (N=54), number of males = 126, females = 23. Age range = 19-54, median age 29. The FP as PCM group had 82.11% radiology utilization compared to only 11.11% radiology utilization as compared to the PT acting as the primary care manager which is significantly different $\chi^2 = 70.55$, ($P = <0.0001$) FP as PCM group had 90.53% with medication compared to only 24.07% of the PT as PCM group which is significantly different. ($P <0.0001$). LR Chi-Square values for PT in regard to radiology usage are 77.19 and medication is 70.99. RTD outcomes of the two groups were compared using Wilcoxon two-sample rank-sum test. There was no significant difference between groups for number of visit, but a statistically significant difference was noted with RTD rate between groups (P value < 0.0001). In the deployed location, access to direct access PT was about 75% faster as compared to FP. Efficiency of PT and FP was not correlated with patient outcomes. Injury acuity was not a factor in the results.

Limitation: Currently civilian PT's cannot prescribe medication or order imaging studies. PT's do not have the liability constraints that physicians have; this could have increased the utilization rate of imaging and/or medication use by the physician group.

Conclusion: PT utilized as musculoskeletal primary care providers demonstrated an effective and efficient way to assess and treat patients with musculoskeletal conditions. This practice model would be simple to implement throughout the Department of Defense. Active duty physical therapist practice in direct access capacity when deployed, and as such we should practice in the same manner when in a non-deployed location. Efficacy and efficiency of treatment offered for patient with musculoskeletal injuries would be optimized, as well as ensuring that physical therapist are ready to deploy without making the transition in the deployed location to evaluating and treating patients in direct access capacity.

Key Words of Search: Direct access, primary care physical therapy, musculoskeletal evaluation.

1. Deyle, G.D. (2006) Direct access Physical Therapy and Diagnostic Responsibility: The Risk-to-Benefit Ratio. *J Orthop Sports Phys Ther.* 36(9):632-634.
2. Pendergast J, Kliethermes SA, Freburger JK, Duffy PA. (2011) A comparison of healthcare use by physician-referred and self-referred episodes of outpatient physical therapy. *Health Service Research.* Article first published online: 23 SEP 2011. DOI: 10.1111/j.1475-6773.2011.01324.x